UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,431	03/30/2004	Alexei Kojenov	SJO920030085US1	5731

46917   7590   12/10/2009
KONRAD RAYNES & VICTOR, LLP.
ATTN: IBM37
315 SOUTH BEVERLY DRIVE, SUITE 210
BEVERLY HILLS, CA 90212

EXAMINER
DAYE, CHELCIE L

ART UNIT	PAPER NUMBER
2161	

NOTIFICATION DATE	DELIVERY MODE
12/10/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

krvuspto@ipmatters.com

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>21 September 2009</u>.
2a)☒ This action is **FINAL**.　　　　2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-3, 5-12 and 37-59</u> is/are pending in the application.
　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-3, 5-12 and 37-59</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
　　a)☐ All　b)☐ Some * c)☐ None of:
　　　1.☐ Certified copies of the priority documents have been received.
　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.
　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   This action is issued in response to applicant's amendment filed September 21,

2009.

2.   Claims 1-3, 5-12, and 37-59 are presented. No claim added and claims 4 and 13-

36 remain cancelled.

3.   Claims 1-3, 5-12, and 37-59 are pending.

4.   Applicant's arguments filed September 21, 2009, have been fully considered but

they are not persuasive.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   **Claims 1, 3, 5-8, 37, 39-43, 48, 50-54 are rejected under 35 U.S.C. 103(a) as**

being unpatentable over Cannon (US Patent No. 6,098,074) filed October 29, 1997,

in view of Patterson (US Patent Application No. 2003/0182326) filed March 19,

2002.

Regarding Claims 1, 37, and 48, Cannon discloses a data management

method, comprising:

backing up contents of a source device at a first client station as at least

one object of a database stored in a data storage subsystem wherein the at least

one object represents an image of the contents of the source device (column 13,

lines 50-67 and columns 16-17, lines 55-67 and 1-14, respectively, Cannon) and

wherein the images of the contents of the source device includes a plurality of

files and a file directory of the source device (column 4, lines 41-46 and column

7, lines 8-12, Cannon);

using the database, tracking attributes and location of the at least one

object in the database (column 7, lines 53-64 and column 9, lines 31-41,

Cannon);

using the at least one object, restoring the contents of the source device

from the at least one object (column 14, lines 1-13 and column 17, lines 18-44,

Cannon). However, Cannon is not as detailed with respect to restoring the

contents to a target file in a file system stored on a storage device so that the

target file contains internally within said target file, said contents of the source

device including said plurality of files and said file directory of the source device,

wherein said file system comprises a plurality of files and an address table

identifying the location of each file on said storage device. On the other hand,

Patterson discloses restoring the contents to a target file in a file system stored

on a storage device so that the target file contains internally within said target file,

said contents of the source device including said plurality of files and said file

directory of the source device ([0049-0052], Patterson), wherein said file system

comprises a plurality of files and an address table identifying the location of each

file on said storage device ([0004-0005] and [0031], Patterson). It would have

been obvious to one of ordinary skill in the art at the time of the invention to

incorporate Patterson's teachings into the Cannon system. A skilled artisan

would have been motivated to combine in order to provide a more optimized

system of managing a plurality of different client stations with stored content.

Thereby, allowing for a better backup and restorable service.

Therefore, the combination of Cannon in view of Patterson, disclose

copying the restored contents of the source device from the single target file to a

target device so that the target device contains the contents of the source device

(column 14, lines 41-67, Cannon).

Regarding Claims 3, 39, and 50, the combination of Cannon in view of

Patterson, disclose the method wherein the target file contains the complete

contents of the source device (column 17, lines 6-14, Cannon).

Regarding Claims 5, 40, and 51, the combination of Cannon in view of

Patterson, disclose the method wherein the data storage subsystem includes a

server coupled to the first client station by a network (column 4, lines 9-20,

Cannon).

Regarding Claims 6, 41, and 52, the combination of Cannon in view of

Patterson, disclose the method further comprising, using the at least one object,

restoring the contents of the source device from the at least one object to a target

device so that the target device contains the contents of the source device

(column 14, lines 1-13 and column 17, lines 18-44, Cannon).

Regarding Claims 7-8, 42-43, and 53-54, the combination of Cannon in

view of Patterson, disclose the method wherein the source raw storage device is

a logical volume of at least one magnetic disk drive (column 4, lines 59-62,

Cannon).

7.   **Claims 2, 9, 11, 38, 44, 46, 49, 55, and 57 are rejected under 35 U.S.C. 103(a)**

as being unpatentable over Cannon (US Patent No. 6,098,074) filed October 29,

1997, in view of Patterson (US Patent Application No. 2003/0182326) filed March

19, 2002, further in view of Maurer (US Patent Application No. 20030065780) filed

September 27, 2002.

Regarding Claims 2, 38, and 49, the combination of Cannon in view of

Patterson, disclose all of the claimed subject matter as stated above. However,

Cannon and Patterson are silent with respect the target file being stored on

storage media at a second client station. On the other hand, Maurer discloses

the target file being stored on storage media at a second client station ([0108-

0109], Maurer). Cannon, Patterson, and Maurer are analogous art because they

are from the same field of endeavor of data restoration. It would have been

obvious to one of ordinary skill in the art at the time of the invention to

incorporate Maurer's teachings into the Cannon and Patterson system. A skilled

artisan would have been motivated to combine in order to store the needed data

on an alternate location, such that if/when one location fails the needed data is

not lost, but instead located elsewhere. As a result, allowing for a better recovery

system.

Regarding Claims 9, 44, and 55, the combination of Cannon in view of

Patterson, further in view of Maurer, disclose the method wherein the source raw

storage device is a partition of a magnetic disk drive ([0053], Maurer).

Regarding Claims 11, 46, and 57, the combination of Cannon in view of

Patterson, further in view of Maurer, disclose the method wherein said target file

is a flat file ([0074], Maurer).

8.   **Claims 10, 12, 45, 47, 56, and 58 are rejected under 35 U.S.C. 103(a) as**

being unpatentable over Cannon (US Patent No. 6,098,074) filed October 29, 1997,

in view of Patterson (US Patent Application No. 2003/0182326) filed March 19,

2002, further in view of Maurer (US Patent Application No. 20030065780) filed

September 27, 2002, and further in view of "Logical vs. Physical File System

Backup", By: Hutchinson, Published: 1999; referred to hereinafter as

'Hutchinson'.

Regarding Claims 10, 45, and 56, the combination of Cannon in view of

Patterson, further in view of Maurer, disclose the method further comprising

mounting the source device ([0079], Maurer). However, Cannon in view of

Patterson, further in view of Maurer, are silent with respect to the source device

being a read only device wherein write operations to said source device are

prevented during said backing up of said source device. On the other hand,

Hutchinson discloses the source device being a read only device wherein write

operations to said source device are prevented during said backing up of said

source device (pg.3, column 2, 1st full paragraph, Hutchinson). Cannon,

Patterson, Maurer, and Hutchinson are analogous art because they are from the

same field of endeavor of system backup/restore. It would have been obvious to

one of ordinary skill in the art at the time of the invention to incorporate

Hutchinson's teachings into the Cannon, Patterson, and Maurer system. A skilled

artisan would have been motivated to combine as suggested by Hutchinson at

pg. 2, column 2, in order to provide system history and increase resilience to

disasters, which means that it is important that the format used to store data

must be archival in nature. As a result, maximizing the speed for data backup

and minimizing the resources that are used in performing the backup.

Regarding Claims 12, 47, and 58, the combination of Cannon in view of

Patterson, further in view Maurer, and further in view of Hutchinson, disclose the

method wherein said copying uses the UNIX dd command (pg.3, 2nd full

paragraph, lines 5-9, Hutchinson).

9.   **Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over**

Cannon (US Patent No. 6,098,074) filed October 29, 1997, in view of Patterson (US

Patent Application No. 2003/0182326) filed March 19, 2002, further in view of

Maurer (US Patent Application No. 20030065780) filed September 27, 2002, further

in view of "Logical vs. Physical File System Backup", By: Hutchinson, Published:

1999; referred to hereinafter as 'Hutchinson', and further in view of Friske (US

Patent No. 6,070,170) filed October 1, 1997.

Regarding Claim 59, the combination of Cannon in view of Patterson,

further in view of Maurer, and further in view of Hutchinson, disclose a data

management method, comprising:

mounting a source device ([0079], Maurer) as a read only device wherein

write operations to said source device are prevented during backing up of said

source device ([0010], Patterson; further details about the device being read-

only, thus preventing write operations can be found within columns 17-18, lines

65-67 and 1-23, respectively; Hitz (incorporated by reference into Patterson));

      backing up the complete contents of said source device at a first client

station as at least one object of a database stored in a data storage subsystem

which includes a server coupled to the first client station by a network wherein

the at least one object represents an image of the contents of the source device

(column 4, lines 9-20 and column 13, lines 50-67 and columns 16-17, lines 55-67

and 1-14, respectively, Cannon) and wherein the image of the complete contents

of the source device includes a plurality of files and a file directory of the source

device (column 4, lines 41-46 and column 7, lines 8-12, Cannon);

      using the database, tracking attributes and location of the at least one

object in the database (column 7, lines 53-64 and column 9, lines 31-41,

Cannon). However, the combination of the references are not as detailed with

determining that a target device is not available; and in response to said

determination that said target device is not available, using the at least one

object, restoring the contents of the source device from the at least one object to

a flat target file in a file system stored on a storage device at a second client

station so that the flat target file contains internally within said target file.

      On the other hand, Friske discloses determining that a target device is not

available (column 2, lines 53-67, Friske); and in response to said determination

that said target device is not available, using the at least one object, restoring the

contents of the source device from the at least one object to a flat target file in a

file system stored on a storage device at a second client station so that the flat

target file contains internally within said target file (column 6, lines 2-13, Friske).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to incorporate Friske's teachings into the Cannon, Patterson, Maurer,

and Hutchinson system. A skilled artisan would have been motivated to combine

in order to maintain an ongoing environment for data restoration.

Therefore, the combination of Cannon in view of Patterson, further in view

of Maurer, further in view of Hutchinson, and further in view of Friske, disclose

said complete contents of the source device including said plurality of files and

said file directory of the source device (column 4, lines 41-46 and column 7, lines

8-12, Cannon), wherein said file system comprises a plurality of files and an

address table identifying the location of each file on said storage device ([0004-

0005] and [0031], Patterson); and

copying the restored complete contents of the source device from the flat

target file to said target device when available so that the target device contains

the complete contents of the source device including said plurality of files of the

source device and said file directory of the source device (column 14, lines 41-

67, Cannon), using the UNIX dd command (pg.3, 2nd full paragraph, lines 5-9,

Hutchinson).

Response to Arguments

Applicant argues, Cannon and Patterson does not teach "using the at least one object, restoring the contents of the source device from the at least one object to a *target file* in a file system stored on a storage device so that the *target file contains internally within said target file*, said contents of the source device including said plurality of files and said file directory of the source device".

Examiner respectfully disagrees. Applicant's argument about Patterson's directory structure being <u>external</u> to the files has not been proven. As a matter of fact, the examiner believes that since the content is restored and contained on the target file, then it is understood that the information would internally within the target file (especially since the target file "contains" the information). As such, the combination of Cannon's backing up of contents, files and file directory, and restoring of the contents; along with Patterson's restoration being done to a target file, discloses the above argued limitation.

Applicant argues, the Cannon, Patterson, and Maurer references fail to teach that such a flat file contains internally the restored contents of a source device wherein the contents of the source device includes *both a plurality of files* and a file directory of the source device.

Examiner respectfully disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091,

231 USPQ 375 (Fed. Cir.1986). In particular, Cannon was relied upon for the disclosure of the restored contents of a source device wherein the contents of the source device includes both a plurality of files and a file directory of the source device (see the action above). While the Maurer reference was incorporated for the teaching of a target file being a flat file. As such, Maurer does in fact disclose the recited feature within dependent claim 11, wherein a map of the logical information to physical devices on the source computer is created in the form of a flat file. Then, the map is used to build a substantially identical logical configuration on the target computer. Since the system allows for the information to be created and stored in the form of a flat file and the flat file format along with the information is backed up from the source computer to the target computer. When the restoring process occurs, the information that has been backed up is still within the flat file formation and is therefore manipulated as such. Also, as an alternative example, paragraph [0102] of the Maurer reference, further disclose using the flat file to map the volume information from one computer system to another. Again, since the information being mapped is within a flat file when the process of backing up the system and restoring the system occurs (paragraphs [0103] and [0110]) the information is maintained in the flat file format. Thus, the above-argued features are in fact taught by the combination of references.

Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHELCIE DAYE whose telephone number is (571) 272-3891. The examiner can normally be reached on M-F, 7:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chelcie Daye
Patent Examiner
Technology Center 2100
December 3, 2009

/Apu M Mofiz/
Supervisory Patent Examiner, Art Unit 2161